

polynucleotide operatively linked to the promoter in a transcriptional unit, said polynucleotide encoding a PTTG-C peptide selected from the group consisting of

(A) peptides having an amino acid sequence consisting of SEQ ID NO:9; and

(B) peptide fragments of (A) that comprise at least 15 contiguous amino acid

residues, including a proline-rich region of SEQ ID NO:9, and that function to downregulate endogenous PTTG expression and/or PTTG function;

said polynucleotide being complexed with a cellular uptake-enhancing agent, in an amount and under conditions sufficient to allow the polynucleotide to enter the cell, whereby neoplastic cellular proliferation or transformation, or both, of the cell is inhibited.

2.(Reiterated) The method of Claim 1, wherein the cell is of human origin.

3.(Reiterated) The method of Claim 1, wherein the cell exhibits neoplastic, hyperplastic, cytologically dysplastic, or premalignant cellular growth or proliferation.

4.(Reiterated) The method of Claim 1, wherein the cell is a malignant cell.

5.(Reiterated) The method of Claim 1, wherein the composition is delivered to the cell in vitro.

6.(Reiterated) The method of Claim 1, further comprising administering the composition to a mammalian subject, such that the composition is delivered to the cell in vivo.

7.(Amended) The method of Claim 1, wherein the polynucleotide is a DNA.

Claims 9-10 are canceled.

14.(Twice Amended) The method of Claim 1, wherein the polynucleotide has a nucleotide sequence consisting of

(A) SEQ ID NO:10;

(B) a degenerate coding sequence of (A); or

(C) a polynucleotide fragment comprising at least 45 contiguous nucleotides of any of (A) or (B) that comprises contiguous nucleotide positions 49-81 of SEQ ID NO:10 or a degenerate sequence.

15.(Twice Amended) A method of inhibiting neoplastic cellular proliferation or transformation, or both, of a mammalian breast or ovarian cell comprising:

delivering to a mammalian breast or ovarian cell that overexpresses PTTG, a composition comprising an expression vector comprising a promoter and a polynucleotide, said polynucleotide comprising a first DNA segment encoding a mammalian PTTG-C peptide, said polynucleotide being operatively linked to the promoter in a transcriptional unit, said PTTG-C peptide being selected from the group consisting of

(A) peptides having an amino acid sequence consisting of SEQ ID NO:9; and

(B) peptide fragments of (A) that comprise at least 15 contiguous amino acid residues, including a proline-rich region of SEQ ID NO:9, and that function to downregulate endogenous PTTG expression or PTTG function, or both, said expression vector being complexed with a cellular uptake-enhancing agent, in an amount and under conditions sufficient to enter the cell, such that the PTTG-C peptide is expressed in the cell, whereby neoplastic cellular proliferation or transformation, or both, of the cell is inhibited.

17.(Amended) The method of Claim 15, wherein the polynucleotide further comprises a second DNA segment encoding an uptake-enhancing or importation-competent, or both, peptide segment.

18.(Amended) The method of Claim 17, wherein the cellular uptake-enhancing or importation-competent, or both, polypeptide is a human immunodeficiency virus TAT-derived peptide segment or a signal peptide from Kaposi fibroblast growth factor.

19.(Reiterated) The method of Claim 15, wherein the cell is of human origin.

20.(Reiterated) The method of Claim 15, wherein the cell exhibits neoplastic, hyperplastic, cytologically dysplastic, or premalignant cellular growth or proliferation.

21.(Reiterated) The method of Claim 15, wherein the cell is a malignant cell.

22.(Reiterated) The method of Claim 15, wherein the composition is delivered to the cell in vitro.

23.(Reiterated) The method of Claim 15, further comprising administering the composition to a mammalian subject in need of treatment, such that the expression vector is delivered to the cell in vivo.

B10
42.(Amended) The method of Claim 1, further comprising administering a cytotoxic chemotherapeutic agent to the cell simultaneously with or after delivering to the mammalian breast or ovarian cell the composition comprising the expression vector.

43.(Reiterated) The method of Claim 15, further comprising administering a cytotoxic chemotherapeutic agent to the cell simultaneously with or after delivering to the breast or ovarian cell the composition comprising the expression vector.

46.(Reiterated) The method of Claim 42, wherein the cytotoxic chemotherapeutic agent is selected from the group consisting of paclitaxel, 5-fluorouracil, cisplatin, carboplatin, methotrexate, daunorubicin, doxorubicin, vincristine, vinblastine, busulfan, chlorambucil, cyclophosphamide, melphalan, and ethyl ethanesulfonic acid.

47.(Reiterated) The method of Claim 43, wherein the cytotoxic chemotherapeutic agent is selected from the group consisting of paclitaxel, 5-fluorouracil, cisplatin, carboplatin, methotrexate, daunorubicin, doxorubicin, vincristine, vinblastine, busulfan, chlorambucil, cyclophosphamide, melphalan, and ethyl ethanesulfonic acid.

Please add new Claims 50-57.

B11
--50.(New) A method of inhibiting neoplastic cellular proliferation or transformation, or both, of a mammalian breast or ovarian cell, in vivo, comprising:

delivering, by in situ injection, to a mammalian breast or ovarian cell that overexpresses PTTG, a composition comprising an expression vector comprising a promoter and a PTTG carboxy-terminal-related polynucleotide operatively linked to the promoter in a transcriptional unit, said polynucleotide encoding a PTTG-C peptide selected from the group consisting of

(A) peptides having an amino acid sequence consisting of SEQ ID NO:9; and

(B) peptide fragments of (A) that comprise at least 15 contiguous amino acid residues, including a proline-rich region of SEQ ID NO:9, and that function to downregulate endogenous PTTG expression and/or PTTG function;

said polynucleotide being complexed with a cellular uptake-enhancing agent, in an amount and under conditions sufficient to allow the polynucleotide to enter the cell, such that the PTTG-C peptide is expressed in the cell, whereby neoplastic cellular proliferation or transformation, or both, of the cell is inhibited.

51.(New) The method of Claim 50, wherein the cell is of human origin.

52.(New) The method of Claim 50, wherein the cell exhibits neoplastic, hyperplastic, cytologically dysplastic, or premalignant cellular growth or proliferation.

53.(New) The method of Claim 50, wherein the cell is a malignant cell.

54.(New) The method of Claim 50, wherein the polynucleotide is a DNA.

55.(New) The method of Claim 50, further comprising administering a cytotoxic chemotherapeutic agent to the cell simultaneously with or after delivering to the breast or ovarian cell the composition comprising the expression vector.

56.(New) The method of Claim 55, wherein the cytotoxic chemotherapeutic agent is selected from the group consisting of paclitaxel, 5-fluorouracil, cisplatin, carboplatin, methotrexate, daunorubicin, doxorubicin, vincristine, vinblastine, busulfan, chlorambucil, cyclophosphamide, melphalan, and ethyl ethanesulfonic acid.